

Mobile work-learning: Spatial re-orderings and digital fluencies

Terrie Lynn Thompson

School of Education, University of Stirling, terrielynn.thompson@stir.ac.uk

Abstract

This short paper (and Pecha Kucha presentation) explores new mobilities and spatial re-orderings of adult work-learning practices. Attention is given to the more sophisticated digital fluencies that seem to be demanded of adult work-learners and the pedagogical implications for educators. Sociomaterial perspectives encourage thinking about how “thingly gatherings” serve in the performance of practice. The unbounded blurry nature of the web and its artefacts can perhaps be described as fluid spaces enfolding with other fluid spaces. Thus, web-based spaces are not containers in which online learning activities take place but rather sociomaterial assemblages that take on particular energies as people and things—both online and offline—negotiate how they move, mix, and mobilize in their correspondences. Analysis draws on empirical data from a research project that explored the effects of the infusion of web and mobile technologies in the enactment of the global work and everyday learning practices of the contingent workforce (the self-employed or micro-small business entrepreneurs). An array of mobilities became evident in these practices, including interactions that slide in, through, and between different cyberspaces; the persistent infusion of the digital and physical into the other; and often capricious and vacillating patterns of presence and absence. However, alongside the mobilities that become evident in these practices, immobilities were also prominent. Using the sociality of practices around mobile devices as an entry point to explore this contradiction, it seems that forces and flows of mobilities are also tied to specificities of place. Although the physical becomes entangled with the digital to enact a specific work-learning space, such spatial re-orderings are not always easily accomplished. Moreover, the often overlooked and invisible spatial negotiations evoked to enact mobility unfold in multiple work-learning places: at home, on the move, in third spaces, at the office, field-based temporary work sites, and innumerable online spaces. This multiplicity adds complexity to how work-learning spaces are conceptualized. Several digital fluencies (a mix of expertise, responsibility, criticality, and innovation) emerge, urging pedagogical and policy response. Four will be highlighted: navigating scale, negotiating openness, wayfinding (Siemens, 2011), and fragmenting-tethering. How to work through the challenges of addressing these fluencies and how best to interrupt current practices are questions facing both educators and adult worker-learners and I hope this paper prompts such discussion.

Keywords

Actor Network Theory, mobilities, mobile devices, adult work-learning practices, space

Knowing practices increasingly unfold in a diverse array of web-enabled spaces. Such learning spaces are often a messy confluence of contested encodings which evoke spatial re-orderings of practices. Indeed, Savage, Ruppert, and Law (2010) write that the digital is “bound up with processes of re-territorialisation and the creation of new knowledge spaces, institutions and actors” (p. 9). This paper, therefore, explores how spatial enactments of practices are changing as new mobilities of adult online work-learning practices are negotiated. Attention is given to the pedagogical implications of the more sophisticated digital fluencies that seem to be demanded alongside these new practices.

Massey (2005) writes about the open-ended, multifarious, and distinctly sociomaterial nature of spaces and relations:

If space is the sphere of multiplicity, the product of social relations, and those relations are real material practices, and always ongoing, then space can never be closed, there will always be loose ends, always relations with the beyond, always potential elements of chance. (p. 95)

The emphasis on open-ended multiplicities fits the unbounded blurry nature of the web and its artefacts: fluid spaces enfolding and mixing with other fluid spaces. Mol and Law (1994) describe fluid space as “a world of mixtures” which may move and transmute as fluid elements inform each other (p. 660). The sense of circulation and movement is important and Ingold (2012) helpfully argues that relations in fluid space become *paths* of flow. And so web-based spaces are not containers in which online learning activities take place but rather fluid sociomaterial assemblages that take on particularities as people and things—both online and offline—negotiate how they move, mix, and mobilize in their correspondences.

This research project asks: How are the work and everyday learning practices of the contingent workforce (the self-employed or micro-small business entrepreneurs) being enacted with, and through, the infusion of web and mobile technologies? Participants in this study are 23 contingent workers (micro/small entrepreneurs or self-employed) from Kenya, Rwanda, and Canada? In-depth interviews were conducted to explore how they engaged with others in “global” online spaces and the work-learning practices being enacted. Data also included journals of online learning activities and learning ecology maps. These data collection strategies encouraged participants to become more conscious of their learning work throughout their workday; messy “day-to-day lived action” (Gourlay, 2012, p. 101).

Other actors were also entangled in online learning practices. This includes: postings, bits of computer code, emoticons, archives, LinkedIn profiles, Google, power cords, viruses, pictures on Facebook, hyperlinks, the delete button, passwords, screens, batteries, and hash tags. Although any of these objects provides an entry point for a researcher, attention necessarily focuses on the “connected” object or as Bruni (2005) describes, the “relational game in which objects are involved (and which objects themselves activate)” (p. 358). Sociomaterial perspectives, such as Actor Network Theory (ANT), encourage thinking about the ways in which the relational and material are intimately entangled and diversely enacted: the sociomaterial mediation of practices and spaces and how “thingly gatherings serve in the performance of practice” (Thompson & Adams, in press). ANT is a form of posthumanist theorizing. A loosely associated set of perspectives, posthumanism questions the notion of

the human as a central and separate category of being and instead sees the human as one actor in complex networks of social practices. Following the actors thus becomes a way of “mapping the relations of practice” (Law & Singleton, 2012, p.7).

Digital Doings

The effects of the online learning practices enacted in this study are a piecing together, a finding and engaging with and through others and their digital things, creating digital channels to both scale and focus, and living with the fragmentary while occasionally lashing things together and tying them down to bring them closer. Such practices are not something people do on their own or necessarily direct. It is done with digital things and at times, digital things work directly with other digital things. An array of mobilities became evident in these practices, including interactions that slide and elide in, through, and between different cyberspaces; the persistent infusion of the digital and physical into the other; and the often capricious and vacillating patterns of presence and absence. However, alongside mobilities that become evident in these practices, immobilities started to assert themselves in the data. I turned to the sociality and materiality of mobile devices to better understand this tension.

The forces and flows of mobility

Certain devices are now confidently labeled “mobile”—phones, tablet computers (i.e., iPads), laptops. In this study, it is striking how mobile devices are implicated in reconfiguring relations within physical and virtual learning spaces. Richardson (2007) reminds that “mobile phone ‘being’ is very much embodied, motile and *in-the-world*” (p. 214). Also striking is how, at times, devices considered “mobile” do not help to enact mobility or mobilize much of anything. Here, Ingold’s work on how humans do more than just interact with objects offers insight. Ingold (2012) argues “that practitioners do not merely interact with their materials but rather co-respond with them: “In the act of production, the artisan couples his own movements and gestures—indeed, his very life—with the becoming of his materials, joining with them and following the forces and flows that bring his work to fruition” (p. 435).

Co-responding with one’s materials became evident in the way workers in this study seemed to couple their learning and work movements with the flow of mobile devices. Complex choreographies were enacted as these movements were negotiated in response to the invitations and susceptibilities of particular encodings and devices. It became clear that Makori’s (an ICT consultant in Kenya) phone *becomes* and *is* a mobile device because of an array of forces and flows of mobility. The achievement of mobility (i.e., mobile work-learning practices) is a co-response of a series human-technology gestures (aka Ingold, 2012). But the Makori-mobile phone assemblage is also entangled in flows of very sociomaterial dependencies and vulnerabilities. It is only as good as its apps and power supply. It can be lost or damaged. Obsolescence is just around the corner. It is even not welcome everywhere.

The making of mobile space

Forces and flows of mobilities are also tied to the specificities of place. Hemment (2005) states that contrary to some of the rhetoric, mobile devices do not create “placeless places”:

the “always anywhere” ... paradoxically there is a “reassertion of place and location” (p. 33). The physical becomes entangled with the digital to enact a work-learning space. But such spatial re-orderings are not always easily accomplished: broken wireless cards confine a person to just one place via an internet cable; security concerns means mobile phones stay at home and are not ported around; no wifi or a zero SIM card balance and the device, as Claire (a mobile app entrepreneur in Rwanda) states, “is totally useless” when on the move. Ben, an ICT consultant in Rwanda, experienced notable difficulties:

My computer has a problem with its battery so I have to turn it on and off to save the battery which means I am always waiting for things to load. Even in a taxi (which are very small here) I cannot use my laptop. I used to print sometimes if I would need to spend four or five hours traveling in a taxi or on the bus so that I can keep reading. I have been using my phone but you have to do really squint because it is very small. But now that I have a tablet I know I can use it anywhere and keep my knowledge with me.

Forlano (2008) emphasizes that in contrast to rhetoric which positions mobility as freedom, convenience, and anytime-anywhere access, mobile work (and learning) spaces are “sites of inconvenience, constraint, and specificity” (p. 39). For Ben, coupling his movements as a mobile worker with the “becoming of his materials” (Ingold, 2012, p. 435) was a bumpy path until a more mobile device appeared. Until then, his materials were struggling to become more mobile, to co-respond with gestures of mobility (aka Ingold, 2012). Clearly technologies alone do not necessarily enact mobile working and learning, signalling a step beyond the technological determinism that often positions ICT as driving the spatial mobility of work/learning and workers-learners. Other things in specific places are also ensnared—or need to be ensnared—in these assemblages to enact mobility in, between, through, and/or as space. There can be no human overseer of all this work; managing such complexity would be impossible. Agency is therefore distributed across a range of human-thingly gatherings.

In this study, the often invisible spatial negotiations needed to enact forms of encoded mobility unfold in multiple work-learning places: at home, on the move, in third spaces, at the office, field-based temporary work sites, and innumerable online spaces. Such multiplicity adds complexity to how work-learning spaces are conceptualized. Richardson (2007) argues that mobile technologies “have irretrievably altered our sense of embodied ‘location’ and ‘presence’” (p. 212). She adds: “it is no longer possible to consider space in terms of the dichotomized categories of here/there, near/far, personal/private, inner/outer or presence/absence, dialectics which dominated our understanding at the beginning of the twentieth century” (p. 212).

Conclusion

This research highlights a range of digital fluencies that are now demanded of adult worker-learners. I use the term “fluencies” rather than literacies” to reflect not only digital expertise, but also to signal responsibility, criticality, and innovation in human-technology interactions. These digital fluencies carry implications for pedagogical and policy response. Several fluencies I noted in other work (Thompson, 2012) surface here. Emerging from this research

project, are four fluencies I draw attention to as necessary to ensure inclusion in new mobilities of work-learning. These include capabilities to:

- navigate scale: flipping from one-to-one to many-to-many to one-to-many ways of connecting in often fast-paced changes of configurations;
- negotiate openness: when/how to be present and absent and the different ways in which the tracings of presence and absence are encoded;
- “wayfind” (Siemens, 2011, para. 7): navigating the “mixtures” of fluid spaces that routinely disrupt familiar binaries of here-there, global-local, online-offline, professional-private; and
- work with the fragmenting and tethering of thingly gatherings to create spaces conducive for work-learning, however temporary.

Borrowing from the etymology of the word *mobile* (which derives from the Latin *mobilis* and includes meanings such as movable, loose, flexible, susceptible, nimble, changeable, inconstant, and fickle; <http://www.etymonline.com/>), it seems educators have much to consider when it comes to how they help adult workers wayfind through new fickle spatial re-orderings of work-learning practices. As Selwyn (2009) states, a swift counterbalance to some of the current hyperbole is needed from accounts of the messy and complex realities of actual experiences. This paper is one contribution that may create a springboard for both educators and adult worker-learners to wrestle with questions of how best to interrupt current practices and how to work through the challenges of addressing these fluencies.

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